

SELECTED CONTRIBUTIONS OF THE GDI / WFSF WORKSHOP

**CHANGING LIFESTYLES AS INDICATORS OF
NEW AND CULTURAL VALUES**

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This system would allow to liberate more energy for the purposes of the community in lucid context.

At long terms the social work from person to person and, the intensification of human contacts are more important and economically seen more efficient than the increase of production by intensifying mobilization of labour. It is evident that this system would also cause less social costs and less ecological strain."...

The model is sketched - does it animate you? We could enrich and amplify it in this following discussion. Let's be creative!

James A. Dator

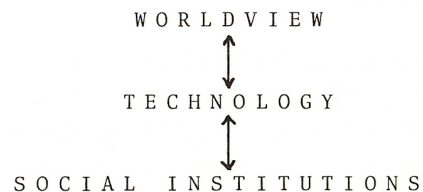
QUANTUM THEORY AND POLITICAL DESIGN

Over the last year or so, an informal group of students and faculty, mainly in the Department of Political Science of the University of Hawaii, have been studying quantum theory in order to see what, if anything, quantum theory can contribute to the development of political science and futures studies, and especially to what I call Political Design (the design of new political institutions). What follows is a very brief statement of my own interest in and understanding of the subject. At the present, this is a highly tentative understanding because the group is continuing to meet, and my knowledge continuing to grow. But I thought it might be of interest even in this embryonic state to a group of people concerned with lifestyles from a future-oriented perspective.

My interest in understanding quantum theory for its possible contribution to political design derives from two quite different sources. One is the thought of Glendon Schubert stemming initially from his talk, "Future Stress, Constitutional Strain, and the American Judicial System" which he prepared for the Citizen's Conference on the Administration of Justice, Honolulu, Hawaii, May 25, 1972 (Now Chapter 12 in his Human Jurisprudence. University of Hawaii Press, 1975), and more recently and more fully in his paper for a panel of the American Political Science Association's 1982 meeting. "The Evolution of Political Science: Paradigms of Physics, Biology, and Politics", published in Politics and the Life Sciences, Vol. 1 No. 2, February 1983, pp 97-110.

The second, and much earlier, influence on me was the book by Jack Burnham, Beyond Modern Sculpture (G. Braziller, 1968) subtitled "The Effects of Science and Technology on the Sculpture of This Century".

From both of these sources, but especially from Burnham, I have concluded that the following is true for previous societies/cultures/civilizations (except for interim periods between their "decline" and "rise"):



That is to say, "normally" political institutions and behavior (and their rationale, and that of the dominant institutions and behaviors in society) are based upon a worldview which is substantially understood and believed in by the members of that society. Technology prevalent in the society is based upon that worldview, and used to construct the institutions of the society. This connection generally existed in all societies, from the earliest tribal and hunting and gathering groups, through the earliest civilizations, up to the late 19th Century. With the rise of quantum theory and of current technologies (primarily electronic) based upon it, this interrelationship has been broken, or at least a prolonged gap has appeared.

Burnham demonstrated this gap in sculpture (and all art) exhaustively. Artists, especially sculptures, do not understand quantum and do not/cannot fashion artifacts based upon it as a Greek artist would understand Greek philosophy and sculpt an image according to it - or as a Renaissance artist would similarly. Indeed, argues Burnham, the true sculptures of our era are the unknown technicians who design and manufacture robotic moon landers while our "artists" usually can only ridicule or ignore electronically-derived artifacts but not create them.

I am convinced that this is also true of contemporary political institutions, political science, and political scientists, and of most "establishment" forecasting and futures studies as well.

Currently dominant American political institutions result from the mixture of Aristotelian and Newtonian worldviews held by our "founding fathers" during the time they were writing the Constitution, slightly modified subsequently by a crude form of Social Darwinism and Freudianism. But Newtonian mechanistic notions dominate our political institutions and the formal laws derived from them. Quantum theory has not touched them at all.

Hence, I am attempting to understand quantum in order to see how or if it can be made an ontological basis for the design of new political institutions and/or systems (or whatever they may subsequently be more appropriately designated).

In order to do that, I have made a survey of what I believe to be the best attempts to explain quantum theory in non-mathematical terms, but I have tried to avoid works which also try to link it to Eastern mysticism or to show how quantum principles might or should be utilized to understand the present world or invent a new one. I have, in short, tried to restrict my survey to "soft" (i.e., verbal) descriptions of "hardcore" physics. This is also the approach the informal group at the University of Hawaii, which I mentioned in the opening paragraph, have been taking. The sources I have found most helpful are listed in the bibliography to this paper. I recommend especially Pagels and Davies.

What follows is a very condensed statement of the basic assumptions of quantum theory which seem to me to be of greatest importance to persons interested in social design.

Some Basic Assumptions of Quantum Theory:

1. Things are not what they seem. If we restrict our understanding of the world to only that narrow band which our human senses perceive, we will have only a shallow and misleading notion of the structures and processes of the world. The assumptions, theories, and methods of positivistic science are simply too restrictive and limiting.

2. For example, it is misleading to conceive of the world as being composed of discrete units which are knit together into, say, systems. There are, rather, quanta and fields (not units and systems). While "quantum" originally meant hypothesized indivisible units of energy - the so-called "fundamental particles" which were sought for in the old physics - the term now designates particles which mediate fundamental interactions (such as the photon). And it is the interactions which are fundamental, not the "separate" particles. Moreover, the most "fundamental" particles and interactions cannot be directly observed. Only their effects can be measured. The deep structure is (forever?) hidden from our direct observation no matter how powerful our instruments. Nonetheless, by operating on the basis of the hypothesized interactions, we seem to have more powerful understanding and control of the world than we do by restricting ourselves only to empirically observable units. This is not a principle we should analogize to society. Rather, it is a principle we should use to look for and/or design the basic structures of society.

3. While immediate cause-effect determinism and rational decision-making both have roles in our lives, those roles are not primary in human affairs. Rather, probability, randomness, uncertainty, and complementarity are "normal".

4. There is no "balance of nature" which must be preserved. Such balances as may be observed are actually very short-lived phenomena. Non-equilibrium and "symmetry-breaking" are to be expected - indeed, to be preferred. "Rejuvenation" - the conscious reaching out to seek new knowledge, ideas, and experiences which "shake up" old ways and balances - is a necessary process of living systems such as societies. Holding on to old ways is the grip of death.

5. Modelling one's understanding of the world via natural (oral) languages can result in little more than a "magical" understanding of the world, while formal, written language is strict-

ly Newtonian. Mathematical modelling seems necessary in order to get closer (though one can never fully understand) the fundamental interactions. To the extent that our educational and legal systems are based on written modelling, as they presently are, then our understanding of the world will remain seriously stunted.

6. Some people say that it is necessary to distinguish between micro, meso and macro levels of reality. Human societies exist at the meso level, but quantum physics seems to understand things better at the micro and macro levels. But it seems to me that the "laws" of quantum physics must operate fully at the meso level too. Thus, we should try to accomodate social design to quantum physics instead of merely taking those elements and beliefs extant in contemporary social science and looking for analogies in physics. The things which are "true" in quantum physics must be directly "true" in human society. This is not a return to positivistic reductionism, I believe, but the assumption that the same basic principles must operate at all levels. How could it be otherwise?

7. Nonetheless, living systems differ in important ways from non-living ones, and human systems may have important difference from other living ones. One important difference is almost certainly human consciousness. Thus, at the meso level, we might say, "consciousness über alles". That seems to be one of the most important messages of the concepts of indeterminism and complementarity, namely: "no observer, no world". "Different observer, different world". "Images of the world are reality. There is no 'objective' or 'real' world separate from each consciousness' images of 'it'".

If this is so, then altered states of consciousness may be necessary to have an altered consciousness of the State. I conclude therefore that we should accept no "crackpot realism", but that we must also resist deciding that "mystical contemplation", and the "wonderous unity with the infinite", is all there is, as well.

Some Tentative Speculations About the Implications of Quantum Theory For Political Design and Future-Oriented Lifestyles

What follows is most certainly a premature collection of half-baked ideas. I am at such an early state of understanding of quantum theory that I should not be attempting to suggest how the basic assumptions listed above might illuminate the design of new political institutions but, in the hopes that readers of this paper might give me their reactions to my attempt, I offer them anyway.

Political Design

All modern political constitutions, and most especially that of the United States, derive from a Newtonian worldview (see Martin Landau, "On the Use of Metaphor in Political Analyses", Social Research, Vol. 28, 1961, pp 331-353, and Schubert's recent article cited above). Some people may argue that the American Constitution was more directly influenced by Greek and Roman political thought, but I would contend that it nonetheless was based upon a "mechanistic" cosmology, with the Newtonian perspective of the then-modern rationalistic and empirical science very much underlying the "founding fathers'" assumptions about proper political design. Contemporary political structures, and the political science and philosophy underlying them (as is also the case of contemporary economic structures, sciences, and philosophies), assume a "rational man", a clear distinction between object and subject (and objective and subjective positions), the reality and determinability of linear and closely-connected "cause and effect", and many other mechanistic notions. Let me mention only two such assumption in politics and law, and sketch what a "quantum" perspective and design might be in contrast.

Representation and Elections

Our laws and political ideology assume the following:

I can be represented by a person who contests for my vote in a market place of persons and ideas. Candidates for election as my political representative run on platforms which are composed of clearly stated and differentiated issues which enable each responsible voter rationally and carefully to discern and choose that person (and/or political party) which is closest to the voter's own rationally-determined issue-preferences. While the fit between my values and those of my representative(s) may never be perfect, a good democratic system should strive towards this direction. If irrational, nonrational, and/or emotional issues are allowed to intrude, much less prevail, this is contrary to the way the system is intended to work, and in fact can work.

Forty years of study of electoral behavior make it clear that this is certainly not the way the electoral system works or can be made to work. Candidates do not try to be as clear as possible and voters tend to "make up their minds" not on the basis of a careful consideration and evaluation of the little issue-oriented material that may be available. Rather, family tradition, party label, ethnicity, sex, sex-appeal, and a myriad of other "emotional" and non-rational bases lie in back of most votes for representatives. There is very little "representation" of rational interests, and my continuing survey of the vast literature of electoral reform suggests that we can not fine-tune any current system to make it work according to our ideology.

A possible quantum approach to representation might be simply to use random sampling: each eligible citizen would be assigned a different number, and representatives be chosen by reference to a table of random numbers. While it is true that some specific legislatures thus chosen might be (indeed, some would certainly be) skewed away from a true representation of society, in the long run, true representation would be achieved.

In the United States we use a method similar to this for other serious political decision-making. Thus I am suggesting nothing particularly radical when I urge it be adopted for choosing political representatives (actually, I really prefer that legislatures be essentially abolished and an electronically-

services system of direct democracy take its place, but that is another matter!). Currently random methods are used for choosing a jury for judicial decision-making, for drafting men into military service, and for public lotteries. It seems to me it has merit as a way of getting a more representative legislature, and of making each individual citizen more responsible and active in self-governance.

The Legal System - Especially Criminal Law

The laws of most modern states, especially their criminal laws, are written on the assumption that normal humans are rational, calculating creatures. Proscribed acts are thus defined in our laws in varying "degrees" on that assumption. Insanity (i.e., non-rationality) is a defense. So, often, is drunkenness, or anything else that would make a person not be "in a rational mind". If the proscribed acts are clearly defined, and widely known, then the rational person will carefully weigh the consequences of performing an illegal act before she acts, it is assumed. The chance of being caught, convicted, and punished must be sufficiently great, and weigh sufficiently more heavily in the scales of benefit or loss, so that the rational person will decide not to act illegally. But if one does act illegally, then "corrections" (i.e., whatever happens in prisons or other treatments of convicted persons) should correct: it should get people to understand the error of their ways, and to act rationally in the future.

This is The Law. This is the early criminal theory, and this certainly is current commonsense. But virtually no contemporary criminologists accept this notion of criminal and non-criminal acts. People do not act "rationally" in this classical sense. Rather, they learn how to make explanations for their behavior which are accepted as "rational" by members of their culture. What are considered to be "rational" explanations differ from culture to culture. The definition of what is "rational" is culture-specific, not value-free and universal.

Thus, it seems that "no-fault" legal systems, such as Japan to some extent, and many traditional societies such as Ponape in Micronesia with which I am familiar, are preferable to our "whose fault?" assumptions.

There is an additional and different problem. "The Law" is conventionally used in modern states to eliminate diversity and force conformity to a single standard of behavior often referred to as "community values". In those places where informal mores are universally agreed upon by members of the society (as they often are in some small-scale communities), such an understanding of "the law" as embodiment of well-accepted community values may be proper. But in a multi-cultural and increasingly diverse and individualistic society, such an understanding of the law can only be oppressive - a blunt instrument of oppression which is used by those in power to dominate and torture those who are not. Although "patriots" will try to create enslaving myths to justify law as a valid and necessary instrument of the nation-state, such "law" cannot demand much respect or admiration in my opinion.

Rather, in a future-oriented, individually-oriented, diversified "transformational society" such as I see likely and preferable for the future, law should take a different tack (and "representatives" chosen by a random instead of highly biased system might be more willing to enact it). Law should be used to support and encourage individual differences, and not seek to impose a single standard of behavior - or even a single way of reconciling differences. Rather law, and the administration of justice, should be sensitive to the needs, desires, and changing preferences of individuals in dispute or conflict. Thus, a flexible, mediation process should replace "The Law". Informality, sensitivity, and humanity should replace the robed, removed, aloof, and authoritarian judge and other Officers of the Court - contempt of court, indeed! A mediator does not look for "reasons" or seek "correction". Rather, she seeks to

obtain whatever agreement the parties to the dispute want, and to encourage them to want such agreement in the interests of peace and harmony without denying the legitimacy of their differences of behavior as well as of thought and opinion. This, too, seems to be a direct application of quantum theory.

Lifestyles

The general lessons seem clear, even if the details remain quite vague (that, too, might be in accordance with quantum): whereas people still want certainty, order, structure, and statics in their lives, and whereas it is this which all societies and regimes tend to emphasize, and over-emphasize, humans also want novelty, probability, freedom, process, and dynamics. In fact, as Eduard Heimann made clear many years ago, life - individual as well as social - is a process of perpetual movement between freedom and order, usually overly weighted towards order, but sometimes too "chaotic". The evolution of humans, and I hope of their societies, is more towards freedom and less towards order, I believe and hope. That this change must be made in a way so as not to "freak out" people is a primary task of quantum-informed political design and realization, to be sure.

The Experimenting Society

Closely related to the suggestions for representation, law and lifestyles sketched above is the concept of the "experimenting society" first developed, I believe, by Donald T. Campbell a decade or so ago. The idea is that legislation and administration of laws should be done on an experimental instead of definite basis. All of society should be viewed as a variety of social experiments in which individuals behave as they choose. Their behavior is observed or monitored not so that they could be corrected, punished or even rewarded but so that others can draw whatever conclusions they want for their own lives through the recorded experience of others. Campbell later abandoned his idea because he felt that, at the present time, it would only be used to manipulate and control people and never to liberate

and empower them. He may be correct - at the present - but the concept is important for us to consider as a part of a quantum political design, it seems to me.

Futures Studies

Let me end with just a comment about the contribution of quantum theory to the concepts and methods of futures studies. I find that many public and private "clients" engage a "futurist" in order to reduce the client's confusion: to predict the future and tell the client how to change his behavior so as to be successful in that future.

Of course, futures studies can not do that, and no responsible futurist should promise it. The simple-minded "prediction" of "the future" has nothing to do with futures studies, and this is not because futures studies is "immature" or lacking in the requisite methods and theory, in my opinion. Rather, it is because, as quantum theory insists, the world is not deterministic. To the contrary, the quantum principles of uncertainty, complementarity, probability and the rest are very much in accord with the notion of "alternative futures" rather than "the future". The hope for, or belief in, predictive futures studies is a holdover from the older Newtonian assumptions of positivistic science, I believe.

Perhaps we should also direct more of our attention to discerning more clearly what the lessons of quantum theory are for futures studies. I would say that the orientation of the World Futures Studies Federation has been, and increasingly should be, more consciously in this direction.

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